

Delta Operations for Salmonids and Sturgeon (DOSS) Group
Conference call: 03/8/11 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://swr.nmfs.noaa.gov/ocap/htm>

DWR: Andy Chu, Mike Ford, Angela Llaban

FWS: Nick Hindman, Roger Guinee

NMFS: Barbara Rocco, Bruce Oppenheim, Barb Byrne, Jeff Stuart, Garwin Yip

DFG: Dan Kratville, Joe Johnson, Robert Vincik

Reclamation, SWRCB, EPA: not present

Agenda: Fish monitoring, project operations, OMR flows

Meeting notes: DOSS is placing the NMFS determinations on the website and finalizing notes. The notes that have a NMFS determination will be top priority.

Fish Monitoring: The following table presents the fish monitoring data from 2/28–3/7/11.

| Location | Chippis Is. Midwater Trawl | Sacramento Kodiak Trawl | Mossdale Kodiak Trawl | Beach Seines | Knights Landing RST | Tisdale Weir RST | Moulton Weir RST | Deer/Mill Creeks RST |
|------------------------------|----------------------------|-------------------------|-----------------------|---------------|---------------------|------------------|------------------|----------------------|
| Sample Date | 2/23/ 3/2, 3/4 | 2/28, 3/2, 3/4 | 2/28, 3/2, 3/4 | 3/1, 3/2, 3/3 | 2/28–3/7 | 2/28, 3/2–3/7 | 2/28, 3/2–3/7 | No data |
| Total Catch | 37 | 61 | 2 | 295 | 263 | 277 | 551 | |
| FR | 0 | 43 | 2 | 266 | 246 | 261 | 534 | |
| LFR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| WR | 7 | 0 | 1 | 0 | 0 | 0 | 5 | |
| SR | 0 | 9 | 0 | 27 | 15 | 16 | 12 | |
| (Ad-clips) | 2 | 0 | 0 | 0 | 1 | 0 | 0 | |
| DS | 12 | 0 | 0 | 0 | 0 | 0 | 0 | |
| LFS | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SPTL | 1 | 0 | 0 | 2 | 0 | 0 | 0 | |
| SH (ad-clip) | 12 | 5 | 0 | 0 | 1 | 0 | 0 | |
| SH (natural) | 1 | 4 | 0 | 0 | 0 | 0 | 0 | |
| Water Temp. (avg. °F) | | | | | 51.8 | 50.0 | 49.2 | |
| Flows (avg. cfs) | | | | | 13,908 | 13,317 | 13,483 | |
| Turbidity (avg. NTU) | | | | | 20.1 | 13.9 | 13.7 | |

| | | | | | | | | |
|-----------------------------|--|--|--|--|------|------|------|--|
| FR/SR Avg. CPUE | | | | | 15.5 | 19.5 | 29.7 | |
| WR/LFR Avg. CPUE | | | | | 0 | 0 | 0.29 | |

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail, CPUE = catch per unit effort.

Moulton: Fall- and spring-run Chinook CPUE was down to about 9.0, increased to 78.0 on 3/5, and went back down to 34.0 on 3/6 and to 19.7 on 3/7. Winter- and late-fall-run Chinook CPUE went from 0.24 on 2/28 to 1.5 on 3/5, and down to 0 on 3/7. No steelhead were caught. Three winter-run Chinook were caught on 3/5.

Tisdale: Fall- and spring-run Chinook CPUE went from 1.75 on 2/28 to 33.2 on 3/5 and 40.3 on 3/7. No winter-run, late-fall-run Chinook, or steelhead were caught.

Knights Landing: Fall- and spring-run Chinook CPUE ranged from 10.5 on 2/28 to 6.3 on 3/4, to 28.1 on 3/7, to 15.5 on 3/8. One hatchery Chinook was caught on 3/2 and 1 ad-clipped steelhead was caught on 3/4. Recent storm events may have triggered fish to move downstream.

Mossdale: Fewer fish this year compared to previous years. There was 1 fall-run Chinook and 1 designated by size as a winter run Chinook. Sizes ranged from 36 to 149 mm.

Chippis Island: There is a peak in older juvenile Chinook; this could be the beginning of the winter-run out-migration period.

Salvage data (2/28–3/6/11): There were no delta smelt, longfin smelt, or white sturgeon salvaged. The first green sturgeon was salvaged on 3/1 (340 mm) at the SWP for an expanded salvage total of 2 green sturgeon. There were none at CVP. This is the first green sturgeon in two years at the salvage facilities. Kevin Clark, DWR, is conducting a migration and predator study on green sturgeon in connection with the South Delta temporary barriers to see how sturgeon move in the south Delta. For additional info:

<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>

Chinook salmon

CVP: Loss was 37 fall run, 0 late-fall run, 0 spring run, and 56 winter run.

SWP: Loss was 33 fall run, 0 late-fall run, 0 spring run, and 380 winter run. Winter run peaked at SWP from 2/18–2/25 and then went down to approximately 18 per day.

Cumulative YTD totals: The cumulative combined YTD un-clipped winter-run Chinook loss is 2,528 (2,205 at SWP, and 323 at CVP) since 10/1/10.

Steelhead

CVP: 26 hatchery and 28 unclipped were salvaged.

SWP: 54 hatchery and 25 unclipped were salvaged.

Cumulative YTD totals: unclipped combined steelhead salvaged = 218 since 10/1/10

Older juvenile Chinook loss and loss density 2/29–3/7/11

SWP & CVP OLDER JUVENILE* CHINOOK LOSS & LOSS DENSITY
02/28/2011 through 03/07/2011

| Date | OLDER JUVENILE LOSS** (# fish) | | | Combined Older Juv Loss Density (fish/TAF) |
|------------|-----------------------------------|-------|----------|--|
| | SWP | CVP | Combined | |
| 02/28/2011 | 132.59 | 3.84 | 136.43 | 7.94 |
| 03/01/2011 | 74.51 | 8.64 | 83.15 | 4.95 |
| 03/02/2011 | 17.69 | 2.88 | 20.57 | 1.09 |
| 03/03/2011 | 72.12 | 21.68 | 93.80 | 5.54 |
| 03/04/2011 | 54.07 | 5.20 | 59.27 | 3.48 |
| 03/05/2011 | 17.99 | 2.60 | 20.59 | 1.20 |
| 03/06/2011 | 18.02 | 10.40 | 28.42 | 1.66 |
| 03/07/2011 | 181.86 | 16.32 | 198.18 | 12.32 |

DWR-DES 3/07/2011

Preliminary, subject to revision

*Older juveniles defined as all Chinook above the minimum winter run length (Delta Model)

**Loss data obtained from DFG, Stockton

The 2/28 estimate reported last week was 7.88; the actual loss density was 7.94. All Chinook lost were winter-run size: 110–189 mm at SWP and 117–150 mm CVP.

OMR: DWR is still targeting -2,500 cfs, and could have issued a change order, but did not based on 3/7/11 data. OMR will remain at -2,500 cfs for another 3 days ending on 3/11/11. DOSS will have a conference call on 3/11/11 at 1:30 p.m. to review the loss density data from the last 3 consecutive days to assess whether the flows can be relaxed.

Smelt working group (SWG) update: The SWG had its first in-person meeting. There were no recommendations because the current OMR flow at -2,500 cfs to benefit Chinook salmon is also protecting delta smelt. Water temperatures in the Delta have been increasing; the average was 52.2°F at the three stations in the FWS BiOp. Water temperature at 53.6°F is a trigger that signifies the onset of delta smelt spawning. Clifton Court Forebay is already greater than 53.6°F, and temperatures at Mossdale, Antioch, and Rio Vista are approaching that trigger. Turbidity is low. Larval survey #4 is in process but none have been collected. Some longfin were collected downstream at four of the 12 stations. The San Joaquin River is still running at 11–12,000 cfs. The Kodiak trawl is in the field this week; no delta or longfin smelt have been salvaged. There was some discussion of the new delta smelt agreement set by the courts. The agreement does not change the triggers; however, it raises the maximum OMR flow rate from -5,000 to -6,100 cfs.

Operations

| SWP | | CVP | |
|-----------------------|--------|----------------------|-------|
| Flows/Exports (cfs) | | | |
| Clifton Court Forebay | 3,750 | Jones Pumping Plant | 4,200 |
| Outflow | 41,000 | American- Nimbus | 6,000 |
| Total Delta Inflow | 51,805 | Sacramento-Keswick | 3,900 |
| | | Stanislaus - Goodwin | |
| Feather - Oroville | 1,750 | | |

| | | | |
|--------------------------------|--------|----------|-------|
| Sacramento River at Freeport | 33,756 | | |
| San Joaquin at Vernalis | 10,229 | | |
| OMR 5 day | -2,578 | | |
| OMR 14 day | -2,420 | | |
| Reservoir Storage (TAF) | | | |
| San Luis | 1,057 | San Luis | 969 |
| Shasta | 3,953 | | |
| Folsom | 637 | | |
| Oroville | 2,788 | | |
| Delta Operations | | | |
| DCC | closed | E/I (%) | 17–18 |
| Outflow Index (cfs) | 44,600 | X2 (km) | 59.5 |
| Water Temperature (°F) | 52.9 | | |

OMR average flows (cfs):

| | 5 day | 14 day |
|--------|--------|--------|
| 3/3/11 | -2,500 | -3,000 |
| 3/4/11 | -2,500 | -2,900 |
| 3/5/11 | -2,600 | -2,700 |
| 3/6/11 | -2,700 | -2,600 |
| 3/7/11 | -2,600 | -2,500 |

DWR declared Article 21 water available; waiting on orders from contractors.

DOSS advice to WOMT and NMFS

DOSS advises NMFS and WOMT to continue targeting an OMR flow of no more negative than -2,500 cfs until the combined older juvenile Chinook salmon loss density at the fish facilities declines to less than 6.64 fish/TAF for 3 consecutive days.

Since the combined older juvenile Chinook salmon loss density (12.32 fish/TAF) exceeded the second-stage trigger of the 2nd OMR trigger (12 fish/TAF) on 3/7/11 (the last day of the previous 5-day action), DOSS also advises NMFS and WOMT that this does not constitute a new trigger exceedance that warrants a new action response of 5 days, but a continuation of the previous action (operating to OMR flow of no more negative than -2,500 cfs).

If the daily loss densities decline, and the preliminary estimate(s) (i.e, before being confirmed by DFG) are close to the first- or second-stage trigger in the NMFS BiOp; DOSS will meet to discuss and provide advice to NMFS and WOMT. DOSS has tentatively scheduled a meeting for this Friday, 3/11/11.

Real-time data reporting meeting: DWR had a conference call with the fish facilities; DWR has not yet sorted out the details, or resolved what should be done to expedite reporting of data.

Next Meeting: Conference call, 3/11/11, 1:30 p.m.